SMA 50 Ohm Dummy Load Plug

<table>
<thead>
<tr>
<th>FREQ. RANGE</th>
<th>GOLD PLATED</th>
<th>NICKEL PLATED</th>
<th>RESISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 GHz</td>
<td>142-0801-861</td>
<td>142-0801-866</td>
<td>50 Ohms</td>
</tr>
</tbody>
</table>
SMA - 50 Ohm Connectors

Specifications

ELECTRICAL RATINGS

**Impedance:** 50 ohms

**Frequency Range:**
- Dummy loads .......................................................... 0-2 GHz
- Flexible cable connectors ......................................... 0-12.4 GHz
- Uncabled receptacles, RA semi-rigid and adapters ....... 0-18.0 GHz
- Straight semi-rigid cable connectors and
  field replaceable connectors ........................................ 0-26.5 GHz

**VSWR:** *(f GHz)*

<table>
<thead>
<tr>
<th>Cable Type</th>
<th>Sea Level</th>
<th>70K Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>Cabled</td>
<td>Right</td>
</tr>
<tr>
<td>RG-178 cable</td>
<td>1.20 + .02f</td>
<td>1.20 + .03f</td>
</tr>
<tr>
<td>RG-316, LMR-100</td>
<td>1.15 + .02f</td>
<td>1.15 + .03f</td>
</tr>
<tr>
<td>RG-58, LMR-195</td>
<td>1.15 + .01f</td>
<td>1.15 + .02f</td>
</tr>
<tr>
<td>RG-142 cable</td>
<td>1.15 + .01f</td>
<td>1.15 + .02f</td>
</tr>
<tr>
<td>LMR-200, LMR-240</td>
<td>1.10 + .03f</td>
<td>1.10 + .06f</td>
</tr>
<tr>
<td>.086 semi-rigid</td>
<td>1.07 + .008f</td>
<td>1.18 + .015f</td>
</tr>
<tr>
<td>.141 semi-rigid</td>
<td>1.05 + .008f</td>
<td>1.15 + .015f</td>
</tr>
<tr>
<td>.141 semi-rigid w/o contact</td>
<td>1.035 + .005f</td>
<td></td>
</tr>
</tbody>
</table>

**Dielectric Withstanding Voltage:** *(VRMS maximum)*

- Uncabled receptacles, dummy loads .......................... N/A
- Field replaceable (see page 59) ............................... N/A
- Two-way adapters .................................................. -90 dB
- Connectors for .141 semi-rigid with contact and adapters .......................... -70 dB
- Connectors for RG-316, LMR-100, 195, 200 .................. -90 dB
- Connectors for RG-58, LMR-240, .086 semi-rigid, field replaceable, uncabled receptacles .............. 500 65
- Connectors for .141 semi-rigid w/o contact, dummy loads .............. 500 125
- Connectors for RG-316; LMR-100, 195, 200 .................. 250 65
- Connectors for RG-58, LMR-240, .086 semi-rigid, field replaceable, uncabled receptacles .............. 750 150
- Connectors for .141 semi-rigid with contact and adapters .......................... 1500 300
- Connectors for .141 semi-rigid w/o contact, dummy loads .............. N/A

**Insulation Resistance:** 5000 megohms minimum

**RF Leakage:** *(dB minimum, tested at 2.5 GHz)*

- Flexible cable connectors, adapters and .141 semi-rigid connectors w/o contact ........................................ -60 dB
- Field replaceable w/o EMI gasket ................................ -70 dB
- Connectors for RG-316, LMR-100, 195, 200 .................. -90 dB
- Connectors for RG-58, LMR-240, .086 semi-rigid, .141 semi-rigid cable w/o contact, uncabled receptacles .............. 670 200
- Connectors for .141 semi-rigid with contact and adapters .......................... 1000 300

**RF High Potential Withstanding Voltage:** *(VRMS minimum, tested at 4 and 7 MHz)*

- Connectors for RG-178 .................................................. 335 60
- Connectors for RG-316, LMR-100, 195, 200 .................. 500 100
- Connectors for RG-58, LMR-240, .086 semi-rigid, .141 semi-rigid cable w/o contact, uncabled receptacles .............. N/A

**Power Rating (Dummy Load):** 0.5 watt @ +25°C, derated to 0.25 watt @ +125°C

**MECHANICAL RATINGS**

**Engagement/Disengagement Force:** 2 inch-pounds maximum

**Mating Torque:** 7 to 10 inch-pounds

**Bulkhead Mounting Nut Torque:** 15 inch-pounds

**Coupling Proof Torque:** 15 inch-pounds minimum

**Coupling Nut Retention:** 60 pounds minimum

**Contact Retention:**
- 6 lbs. minimum axial force (captivated contacts)
- 4 inch-ounce minimum torque (uncabled receptacles)

**Environmental Ratings** *(Meets or exceed the applicable paragraph of MIL-C-39012)*

**Temperature Range:** -65°C to +165°C

**Thermal Shock:** MIL-STD-202, Method 107, Condition B

**Corrosion:** MIL-STD-202, Method 101, Condition B

**Durability:** 500 cycles minimum

**Shock:** MIL-STD-202, Method 213, Condition I

**Vibration:** MIL-STD-202, Method 204, Condition D

**Moisture Resistance:** MIL-STD-202, Method 106

†Avoid user injury due to misapplication. See safety advisory definitions inside front cover.

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MATERIAL SPECIFICATIONS

Bodies: Brass per QQ-B-626, gold plated* per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Contacts: Male - brass per QQ-B-626, gold plated per MIL-G-45204 .00003" min.
          Female - beryllium copper per QQ-C-530, gold plated per MIL-G-45204 .00003" min.
Nut Retention Spring: Beryllium copper per QQ-C-533. Unplated
Insulators: PTFE fluorocarbon per ASTM D 1710 and ASTM D 1457 or Tefzel per ASTM D 3159 or PFA 340 per ASTM
Expansion Caps: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Crimp Sleeves: Copper per WW-T-799 or brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Mounting Hardware: Brass per QQ-B-613, gold plated per MIL-G-45204 .00001" min. or nickel plated per QQ-N-290
Seal Rings: Silicone rubber per ZZ-R-765
EMI Gaskets: Conductive silicone rubber per MIL-G-83528, Type M

* All gold plated parts include a .00005" min. nickel underplate barrier layer.

NOTES
1. ID OF CONTACT TO MEET VSWR, CONTACT RESISTANCE AND INSERTION WITHDRAWAL FORCES
   WHEN MATED WITH DIA .0355-.0370 MALE PIN.

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